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BRISTOL
DIOCESAN
TRADE SCHOOL.

From the

"BRISTOL GAZETTE,"

April 3rd, 1856.



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OPENING OF THE DIOCESAN TRADE SCHOOL BY THE RT. HON. THE EARL GRANVILLE.

Friday was an interesting day for those in Bristol who wish well to, and are anxious for the progress of, education amongst the working classes.

Our readers are already aware of the establishment of a Diocesan Trade School, or rather the conversion of the old Diocesan School into one. The nature of these institutions, which are now very generally in operation throughout the country, was explained in an extract from one of their prospectuses, which we gave last week, and which, as the most succinct explanation of their objects, we may be pardoned for reproducing here. "In these schools," say the projectors, "no attempt will be made to teach the practice of the workshop; all that will be taught are the principles upon which the work proceeds. The knowledge of the principles will, however, lead to a much more speedy attainment of the practice; while the youth possessing this knowledge will be enabled to fulfil the duties of the position in which God has placed him, by acting as a rational and understanding being, instead of carrying on his work in a blind habit of 'rule of thumb' experience. As this is the high aim of the Trade School, its instructions will not be limited to the mere teaching of the principles of trade or manufactures. It will give, in the ordinary branches of education necessary for all men, a more thorough acquaintance on each subject, than it has been possible to give in the elementary preparatory schools. No boy will be admitted to the school unless he can read and write tolerably, and has a fair acquaintance with the first three rules of arithmetic. Reading and writing will still continue to be objects of instruction in the school; but the first will be taught through books affording useful knowledge in science, history, and literature; and the second, by dictation, letter writing, and book-keeping. History and geography will also form important subjects of instruction, though they will be carried further than in the elementary schools. Besides a thorough knowledge of political geography, physical geography (which shows how God fashioned the earth into seas and continents, mountains and plains, lakes and rivers, and how they are refreshed by rains, winds, and seasons) will be especially taught.—The science of numbers will receive much study. Arithmetic in all its branches, will engage more than usual attention, and will be carried on to algebra and mathematics. The master of the school will be well versed in these sciences, and as they form the basis of the mechanical and commercial trades, they will be fully taught. The application of the knowledge thus acquired, to an elementary acquaintance with the laws of physics and mechanics, and, subsequently, probably of chemistry, will be brought before the pupil. Free hand and mechanical drawing, vocal music, &c., will also form a part of the instruction for all the pupils of the school. Appliances for gymnastic exercises will be put in the play ground. The working of the telegraph will also be taught."

This statement of the functions of the Trade School, as assimilating to, or distinct from, other educational institutions, is comprehensive enough; more shortly given, however, it amounts to this—that the instruction it offers, while embracing the usual subjects of an ordinary English course, further proposes to teach the principles of science, with special reference to trade and manufactures. In the Bristol School—and, we believe, it is the same in other places—the scientific lessons will be illustrated and practically applied, by demonstrations and experiments, in a laboratory fitted up for the purpose.

To this end, the building in Nelson-street, long familiar to the public as "The Diocesan School," has been admirably remodelled, arranged, and turned to as much account as the space would permit. It formerly consisted of two large rooms—upper and lower. These are now partitioned off—on the ground floor, 1st, into a convenient lecture room, with appliances for the lecturer and seats for the audience, like that of the Philosophical Institution, in Park-street; 2ndly, into the laboratory referred to, which is furnished and fitted on a plan supplied by Dr. Playfair; 3rdly, an apartment for the lecturer's experiments; 4thly, a lavatory, &c., for the scholars. On the upper story are two large class-rooms, with desks, &c., properly heated and ventilated; a capital museum, which will doubtless, by and bye, become the repository of an interesting and valuable collection of engineering and mechanical models, mineral specimens, and mineral maps, and, in fact, all objects calculated to train and enlarge the information of the mechanic and give him sound starting points of knowledge.

Such is the institution, to inaugurate which the President of the Council, Earl Granville, arrived in Bristol on Friday. In

order to do full honour, and give weight to the occasion, the Committee of the school made such arrangements as would effect this purpose. A number of leading citizens, friends of the school, were invited to meet him at a breakfast or *dejeuner*, given in the Council Chamber, after which it was settled that his Lordship, accompanied by the Right Worshipful the Mayor, the Committee, &c., should proceed to the Merchants' Hall, in the noble saloon of which, so suggestive of the ancient commercial renown of Bristol, the inaugural address was to be delivered.

THE BREAKFAST AT THE COUNCIL HOUSE.

His Lordship arrived from London by the 12.40 train, and was received on the platform by the members of the committee, who conducted him to the Mayor's state carriage, kindly lent by his Worship for the occasion.

In the meantime the Mayor and guests had assembled at the Council House, awaiting the Lord President's arrival. The breakfast was held in the Municipal Chamber, which looked to great advantage, and was calculated to give our noble visitor no mean notion of the civic prestige of Bristol; his Lordship, indeed, cast his eyes around with evident interest on the pictures of former Lord Stewards and Royal personages, the framed autograph letters of great men, which, by the taste and care of the late Chamberlain had been arranged there, the insignia, the plate, and other memorials of local history. The great painting by Vandyke, of the Earl of Pembroke, of the possession of which Bristol is justly proud, particularly attracted his attention as he sat at breakfast.

A few minutes after one o'clock, the noble Earl arrived at the Council House, and entered the large Committee Room, which was used for the purpose of reception, preceded by the Mayor, and accompanied by the Dean of Bristol, the Rev. Canon Moseley, Mr. Joshua Saunders, and other members of the Committee. He was, by the Mayor, introduced to several of the gentlemen present. The Lord President of the Council is in his forty-first year, having been born the 11th of May, 1815. Time has neither thinned nor faded his flowing locks, which are brown, inclined to lightness, and which, as well as his whiskers, are worn in fair profusion. The cares of state do not appear to have affected his condition, for he is disposed to fullness for one of his years. He is about 5 feet 9 inches, and when we state that he wore a black frock coat and spotted silk necktie, we have said all we have to say about his external man. He is a clear, neat speaker, though not a profound one: industrial educational subjects are his forte, and as a linguist, he is so accomplished that, when he went to Paris as one of the Exhibition Commissioners, he astonished the people there by the facility and eloquence of his speech in French.

It was nearly half-past one when breakfast was announced, and the company entered the Council Chamber, which was fitted up with three tables, one at top and two running the length of the room. The *dejeuner*, which was an elegant and abundant one, was furnished by Mr. Heal, of the Athenæum Refreshment Rooms, and included all the delicacies of the season, with abundance of champagne and the choicest wines. On the right of the Mayor sat the Earl Granville, and on his left Earl Ducie, on each side of whom were the Dean, the Rev. Canon Moseley, the High Sheriff, Mr. Langton, M.P., Dr. Lyon Playfair, Sir Thomas Gladstone, Mr. Battersby Harford, &c., &c.: the following being the list of the company at large:—The Mayor, Earl Granville, Earl Ducie, Sir A. H. Elton, the Dean of Bristol, W. H. Gore Langton, the High Sheriff, Mr. Commissioner Hill; Mr. G. H. Ames, Mr. P. F. Aiken, Rev. Canon Banks, Mr. W. M. Baillie, Mr. Henry Bush, Rev. E. Bromby, Rev. H. Bellairs, Mr. J. S. Budgett, Mr. Henry Bennett, Mr. John Bates, Mr. James Bush, Mr. Handel Cossham, Mr. George Cooke, Mr. Edwd. Clark, Conrad Finzell, Sir Thomas Gladstone, Rev. Canon Girdlestone, Rev. S. J. Gale, Mr. Charles Greville, Rev. H. Gay, Mr. James Hassell, Mr. J. Battersby Harford, Mr. W. H. Harford, Rev. J. W. D. Herniman, Mr. T. P. Jose, Mr. Thomas Kingston, Mr. R. P. King, Mr. W. P. King, Mr. A. J. Knapp, Mr. J. E. Lunell, Mr. Robert Leonard, Mr. Joseph Leech, Mr. Charles Monk, Rev. Canon Moseley, Mr. H. J. Mills, Dr. Lyon Playfair, Mr. Thomas Powell, Mr. H. Parr, Mr. Robert Phippen, Dr. Rogers, Rev. Canon Surtees, Mr. Joshua Saunders, Mr. Edward Slaughter, Rev. S. Smith, Mr. C. F. Sage, Rev. E. D. Tinling, Rev. R. H. Taylor, Mr. William Terrell, Mr. John Taylor, Mr. Christopher Thomas, Rev. D. Wright, Mr. W. D. Wills, Mr. Nicholas Wood, Mr. John Wilkson.

Towards the close of the breakfast the Mayor rose and gave "the health of the Queen," after which he proposed that of "their noble visitor, the Right Hon. the Earl Granville." His Worship observed that they were much indebted to the committee of the trade school, not only for their valuable exertions in originating that institution, which he believed would prove

a lasting benefit to Bristol, but also for the opportunity which they had afforded him and others of welcoming to their ancient city so distinguished a man and member of her Majesty's government. As other proceedings yet awaited them, he (the Mayor) would content himself with thus briefly introducing the toast.

Earl GRANVILLE in acknowledgment, said he would profit by the hint which had just fallen from his Worship, and only detain them to say that although a stranger in their city, he felt from the kind manner, in which he had been received, that he had taken no false step in paying this visit to open an institution in the welfare of which it was evident they took so warm an interest. Upon one other occasion had he (Lord Granville) visited Bristol, and that had been to witness the launch of that magnificent vessel, the triumph of engineering skill, which was the first of that series of splendid ocean steamers to narrow the distance between this hemisphere and the continent of America (hear). He was happy to perceive that the good spirit which prompted that noble experiment still existed here, and that the inhabitants of this great and ancient city were now willing and working to extend to the many, the benefits of that science and knowledge which then enabled a few to accomplish so glorious an enterprise (applause).

The DEAN OF BRISTOL, on behalf of the Committee of the Trade School, begged to tender their best thanks to the Mayor, for his kindness in allowing them to receive and entertain their noble guest in the fine apartment in which they were then assembled. As some token, though a small one, of their gratitude, he would ask permission to propose the Mayor's health (applause).

HIS WORSHIP having briefly acknowledged the compliment, intimated that they would then accompany the Lord President to the Trade Schools, in Nelson street, after inspecting which they would attend him to the Merchants' Hall, where the inaugural proceedings would take place, and the address would be delivered.

The company then adjourned to Nelson-street, where they minutely inspected the various arrangements and rooms, a description of which has been already given.

MEETING AT THE MERCHANTS' HALL.

The number present at the Merchant's Hall filled, though not inconveniently, the handsome banquetting-room, which has been so tastefully restored by Mr. Owen Jones. There were several ladies present. A platform was erected at the upper end, which was occupied by the committee, and by the majority of the gentlemen who had been present at the breakfast.

On the motion of the Dean, who made the request on behalf of the Committee of the schools, Earl Granville took the chair.

Mr. MONK seconded the proposition, and in doing so stated that although his father (the Lord Bishop of the Diocese) was prevented by ill health from attending they had his best wishes and prayers for the success of this admirable project.

Earl GRANVILLE, having taken the chair, called on the Rev. David Wright to read the following

REPORT.

"The origin of the Institution, now called the Bristol Diocesan Trade School, dates back to the year 1812.

"The original school, under the presidency of the Bishop of the Diocese, was established to meet the want which parish schools now supply; as these advanced it languished, and three years ago the committee entrusted with the management of its affairs perceived that under the old form it could no longer exist—the number of its scholars was dwindling rapidly, and it became evident that the school must be closed. During the forty years of its existence it served a most important purpose and then came to an end; as a stimulus to education in the parishes of this city and the diocese it was designed to act, and its own dissolution was in fact the natural fruit of the success of its object.

"But a society consisting of more than sixty annual subscribers yet survived—there was also an excellent school building, and certain monies in the hands of trustees. It became an anxious question in what manner these resources should be applied.

"In this difficulty, the Rev. Canon Moseley was consulted and under his advice, and through his influence and exertions, and with the full concurrence of the Lord Bishop of the Diocese, who presided at the public meeting, when the alteration was first proposed, there now stands upon the foundation of the old Diocesan School, the Institution which we are met to inaugurate this day.

In the year of the Great Exhibition, it became notorious that the English workman was, for the most part, far behind his brethren on the Continent, not only in matters of taste relating to his special employment, but in the knowledge also of the principles of science upon which his trade or manufacture was based. Memorials from many parts of the kingdom were for-

warded to the Council of the Great Exhibition, pressing for the adoption of measures to remedy this inferiority.

"It was evident at once that an effectual remedy could be applied, only in the case of the next generation of workmen.

From lectures, adult evening classes, and lending libraries, much benefit might indeed be derived, but for the artisan to follow the duties of his employment, with an intelligent perception of the scientific principles on which it was founded, instruction in these things must, it was felt, be incorporated with the lessons of his childhood,—it must be drummed into him when a lad at school, as Latin is into the Eton or Winchester boy—the national school of the country, the school of the working man's child must be raised, and knowledge given there, which should receive its illustration afterwards in the apprenticeship course, and be applied in the work of the man. This was felt to be the only remedy for the deficiency complained of, a deficiency acknowledged to be of such national importance as to render expedient the creation of a Department of the Board of Trade, for the special encouragement of schools of the character and object now described,—and this is the character and the object of the Bristol Diocesan Trade School.

"There is no trade in Bristol upon which the instruction to be given in this school will not have a bearing. A careful analysis of the trades of the place was made by the author of the letter, upon which the scheme is founded, and the course of teaching to be followed based upon that analysis. It is not intended that 'the practice of the workshop shall be taught, but that the principles shall be taught upon which the work proceeds.'

"It should here be mentioned that a mining school has been established in intimate connection with the Trade School, and that the gentlemen, who have charge of that department, proceed upon a method analogous to that, the general principle of which has now been given.

"Masters have been appointed, whom the highest authorities have pronounced amply qualified to carry out the plan proposed, and, through powerful Government help, the building has been fitted with a costly apparatus, which will enable the masters to test and illustrate their lessons by experiment. It is hoped, and confidently believed, that every boy, of ordinary intelligence, who shall pass through a course of two years' schooling at the Bristol Trade or Mining School, will be furnished with knowledge which he may apply with advantage and enjoyment to the business of his future avocation in life, whatever it may be.

"There is another point which has claimed and received the attention of the Committee. It is strongly their conviction that scientific or any other kind of knowledge, howsoever extensive, is injurious rather than otherwise to minds undisciplined by moral and religious training. Provision has therefore been made that the children educated in the schools shall receive daily religious instruction, and care will be taken to watch, and (as far as may be) direct the principles and conduct of the pupils. By the obligations of their trust over and above their sense of personal responsibility the committee feel themselves bound to this course. In their hands is deposited the charge which the founders of the Diocesan School took upon themselves and delegated to their successors. This charge the Committee having taken up, will to the best of their power fulfil; the nature of the secular instruction will be greatly elevated; the religious instruction will continue as before. To secure this it is provided that the office of a Chaplain shall be permanently attached to the school, to be filled by a clergyman of the Church of England, who will act also as honorary clerical Secretary of the society, and will represent in the school the authority of the Committee itself. It is at the same time resolved that the religious instruction shall not be compulsory on the children of Nonconformists in case of objection being offered by the parents.

"Incidental allusion has been made in the course of this statement to the aid which has been received from Government. It would be most ungrateful in the Committee to let that point pass without marked and special acknowledgment of the obligation under which they lie, both to the Board of Trade and to the Committee of H. M.'s Privy Council on Education, for the effectual support granted them by those two departments of the Government, support—without which it would have been impossible for them to fit the school up with the appointments and apparatus needful for its efficient working, and with which now it is furnished. Nor can the Committee let the opportunity pass of expressly recording their thanks to Earl Granville for the courtesy with which he has responded to their numerous applications, and for his cordial interest in the school's progress, (of which his presence here to day is the latest proof)—and the Committee trust they will retain in all their future efforts the advantage of his Lordship's countenance.

"The Bristol Diocesan Trade School is now before the city; the

briefest outline of its purpose is all that has been attempted in this report,—for a detailed account of its character and advantages other sources are at hand. The Committee have a perfect confidence in its success, they know that it is too substantially good a thing to fail; in this faith they have, without hesitation, incurred heavy charges in the alteration of the building—to the extent, indeed, of about £400 over the present available funds,—of this expenditure being met, they have not the smallest fear; but it will be for the working men of Bristol to say whether the prime object of this school's foundation shall be answered or not. It is for the benefit of *their* children that the school is established,—education is offered them in it—first such as that of ordinary commercial schools,—and then, knowledge directed to their future daily work, and qualifying them to follow their daily work with the skill and pleasure which only such knowledge affords. Much effort has already been made to set the schools before the working-classes in Bristol; for their own sake it is earnestly hoped that they will answer to the appeal.

"To those interested in the school's advancement, and anxious to promote it, the Committee would suggest the placing at their disposal apprentice premiums as prizes for the most proficient and best conducted of the scholars; this might be done by subscriptions for that object, or it is thought possible that those who have the distribution of public charities of this nature might not deem it unfitting to appropriate them in such a manner. With great deference to the judgment of gentlemen so situated this suggestion is thrown out.

"The Committee cannot conclude this report without a strong expression of their congratulations to the Rev. Canon Moseley on the proceedings of this day; the idea originated with him which has at length developed itself into the institution this day inaugurated. It must be a satisfaction to him to think that whatever benefit the people of Bristol may hereafter derive from the Diocesan Trade School will be associated with his name. And Bristol itself should be reminded of its distinction in this respect. In the educational movement now so general throughout the great towns of the kingdom, Bristol was the first to stir. The idea of a Trade School was first mooted here, and preliminary steps for the formation of one first taken and publicly announced here—delays and difficulties beset the early attempts to set the school on foot, which it was once thought could hardly be surmounted—to remodel an old institution is often far harder than to create a new one—it proved so in this case—and thus, in the *execution* of the scheme, we have been in one or two quarters outstripped, but with Bristol it is believed the honor remains of having first seriously set itself to a class of undertaking of which it is the simple object, and, by the blessing of God, the felicitous result will be, it is hoped, to ameliorate the condition and elevate the character of the English workman."

Sir A. ELTON, Bart., moved the first resolution, which was as follows:—That this meeting having heard with deep interest the statement of the objects of the Diocesan Trade and Mining Schools, and the influence they are calculated to exert both in elevating the character of the working classes, and advancing the general prosperity of the city, is of opinion that such an institution deserves the cordial support of all interested in the welfare of Bristol." He said he felt that the difficulty of his task on the present occasion was much lessened by the very able and convincing manner in which the report they had just heard was drawn up. He thought the arguments in favour of the resolution he was about to propose were there very concisely and convincingly stated. The sort of education which the institution purposed giving was of a two-fold character. The mental culture which its promoters proposed diffusing was not merely such as would qualify the young men of the city to earn their bread honestly and respectably, to raise and keep them above the dreary level of the pauper, or from the capricious aid of the charitable, it was not merely to enable them to do credit to those vocations to which they devoted themselves, nor was it to confer upon their employments the advantages of intelligence and zeal, and that thorough familiarity with science which would be acquired at a school of this nature; but it was also calculated to strengthen, elevate and refine the characters of those who entered themselves as members of the institution—(hear, hear). It was not merely calculated to render them good artisans, good mechanics and good tradesmen, but good citizens and worthy members of the important community of Bristol, in the heart of which he might say, this noble institution had been raised. He was well convinced that the thorough education which was about to be imparted to the young men of that school would not merely have an important and beneficial bearing upon their worldly calling, but that it would enable them the better to appreciate the weight of those arguments, and the force of those opinions which had convinced the understanding, if not touched the heart of the

majority of all thinking men during all ages of Christianity. He had been much struck not long ago in reading an account of a poor man, one in humble circumstances, who had committed suicide, and who had given in a few words the reasons which had induced him to do it. He was weary, he said, of doing the same thing over and over again every day. That circumstance he thought carried with it a very useful lesson. Had that poor man's mind been educated, replenished, and stored with some of those useful and interesting ideas which educated minds possessed—could he have appreciated the beauty of nature and the varied stores of literature—had he been enabled to take pleasure and enjoyment in his daily work, to understand and penetrate into the meaning and principles of his business, he would have turned that labor which was to him nothing but sorrow and trouble into a source of recreation and enjoyment, and would not have sunk into the sullen despair during which he had destroyed himself—(hear, hear). He had been much pleased at an allusion made by the Rev. Canon Mosely in the able statement he had put before the public, to the founding of exhibitions at national schools for the purpose of placing some of the most deserving of the pupils at the Diocesan Trade School, and it had struck him that it would be well if the same plan could be applied and carried out on a larger scale in connexion with this latter institution itself. The idea he saw had been mentioned in the report—he alluded to the reference made to apprentice premiums, which, it appeared to him, would exert a highly salutary and useful influence. It was worth a little consideration whether the government itself—of which they had then present a distinguished and earnest-minded representative—(cheers)—could not beneficially co-operate with the committee in this respect by placing at their disposal some of the appointments in the civil service to be conferred on the most deserving pupils—(hear, hear). In this way not only would the working classes be stimulated to send their children to the schools, but the sons themselves would be stimulated to devote themselves more heartily to the arduous, honorable, and laborious course of study prepared for them at that institution—a course which might not, perhaps, be crowned with immediate success, but which would carry with it advantages of the most solid and enduring character—(hear, hear). There had been objections raised to the general diffusion of education amongst the working classes; it was thought in early times that it would tend to make them too fine, too proud for their station in life; but he must confess that when any person urged such an objection to him he regarded him with a mingled feeling of compassion and astonishment, and as deficient in that education which he sought to keep from others—(hear, hear, and cheers). It seemed to him that to teach a man how to command himself and make use of all his faculties, and strengthen his thinking powers, was the best way to teach him what his duties were, and the wisest and best course to pursue; and when he saw that the institution, the opening of which they were met that day to celebrate, was supported by the wealthy, the influential, and the intellectual classes, he could not but feel that it must tend to cement and knit together the various classes of the community in the ties of kindness, sympathy, and good-will—(cheers). The honorable baronet concluded by cordially moving the resolution.

Mr. R. P. KING seconded the resolution, taking occasion in doing so to congratulate the city on the event which they were that day celebrating. There were few places in which there was a greater diversity of trades than in Bristol, and therefore few places where the training, which they proposed to give would be more beneficial to the various branches of industrial art. They still had many manufactures in full work and in great prosperity, but others, which at one time had existed in a flourishing condition, were now nearly effete, or had altogether disappeared. This was owing certainly to no want of capital amongst their upper, or of diligence amongst the labouring classes, but to a want of a sufficiently extensive trade to render them remunerative. This falling off in custom was probably owing to the competition of other places, and had they perhaps the skill and artistic proficiency, which trade schools would now secure, this falling off would not have occurred (hear, hear). For this reason, commercially and socially, he hailed with satisfaction, the new æra in popular instruction, represented by the establishment of Trade Schools.

Dr. LYON PLAYFAIR in supporting the resolution, apologised for the unprepared manner in which he stood before them, as he had not the slightest expectation that he should have been called upon to address the meeting. The statements of the report as well as the observations of the preceding speakers clearly set forth the object of and the necessity for the establishment of such an institution as the one about to be opened in this city, and therefore there remained but little for him to say. He might perhaps, however, be permitted to observe, that a knowledge of

the principles involved in the industrial arts was most essential to the prosperity of the country. We had paid some attention to juvenile education, and lately to that of the fine arts; but the industrial arts had been almost if not quite entirely neglected. Attention to the fine arts might be, and was important, but the industrial were the most essential, and indeed the true foundation of the fine arts. Should anything be wrong in the education and prevent the development of the industrial or necessary arts, the fine arts could not thrive. The industrial arts might be likened to the root, the stem, and the leaves of the plant, and the fine arts compared in relation to the industrial arts, to the flowers of that plant. If the roots or the tubers of the potatoe decayed, their bills of mortality were blackened, but if the flowers did not appear, and the roots were sound, their mortality was not influenced thereby. Unfortunately it had happened that in this country in the course of education hitherto pursued, they neglected those principles upon which the prosperity of the industrial arts mainly depended, and it was with the view of providing for that omission that trade schools were sought to be established. Man was not the creator of anything in the world, but he could convert that which was created to his own use and advantage. For instance man could not create a single natural law, and unless he understood that law he became its slave. But if he understood it, then such natural law became his friend, and he was able to direct it to suit his own purpose. All therefore that man could do in this world was to combine the facilities afforded him by the natural laws, and use them for the purpose of supplying those wants which the exigencies of his nature created. In these days of social progress manual labour was every day becoming less and less important; every where they saw the labor of men being replaced, first, by that of women and children, and lastly by machinery. But whilst manual labour was thus declining, skilled or intellectual labour was daily increasing in importance, and the question to be solved was, whether, looking upon the matter in a merely selfish point of view, the population of this country should be so instructed as to enable England to maintain that manufacturing supremacy which she now possessed. This was the object sought to be obtained by Trade Schools. The design was to instruct the working population in a knowledge of those laws and principles, which were involved in the various industrial pursuits in which they were engaged. It was not designed in such a school to make practical artisans or expert workmen; such a scheme had been tried and failed; manual dexterity must be taught elsewhere; all that they could do would be to try and give the pupils a knowledge of the principles, they were daily putting into operation. There was, he might observe, a peculiar claim upon Bristol to be the first to start such a school as the one just established. Some of the greatest industries of the country had been originated here. Until 1717 the copper ore which was raised in such abundance in Cornwall was taken to Sweden, Hanover, and Lower Saxony to be smelted, and upon these countries England was dependent for her supply of copper. In the year mentioned, however, smelting was commenced in Bristol, and here it was that money was first coined out of home-made copper. Most of the great discoveries connected with the smelting of copper, which now made this country so pre-eminent in the art, were discovered in Bristol, and though there were no great manufactures in this branch of trade carried on in the locality now, because local circumstances had tended to carry it elsewhere, yet the world owed much to Bristol for having taken such a position with respect to it. Zinc also, another most important article was first produced in Bristol, the braziers of which still maintained a pre-eminence amongst their fellow-workmen in the kingdom. One great object of the Trade School would be to bring a knowledge of science in connection with skilled artisans, by which it was to be expected that the arts and the sciences would be mutually benefited. There were laws involved in many industrial arts which science had hitherto been unable to explain; this no doubt arose in a great measure from the fact that those engaged in these arts were almost all entirely ignorant of science, but when they became acquainted therewith doubtless the operation of many a law would be observed and explained. These schools would in many ways become of benefit to the country. They would serve to expand the minds of the working men, the intellectual prosperity of the country would be advanced, and England would be enabled to keep her position amongst the nations in the intellectual competition which was now going on throughout the world. Competition was no longer affected so much by local advantages. The sea was now almost bridged over and the means of communication were so rapid that any little superiority in intellect was far more valuable than any mere local advantage. The competition of industry therefore was now a competition of intellect, and unless they recruited this intellect, to look upon the matter from a selfish point of view merely, their country could not stand. It was marvellous indeed that in the common affairs of life they did

not teach principles. Since he had come into the room one of their chief African Venturers mentioned the impossibility of getting good cooks for ships, and had asked him (Dr. P.) if he could not recommend him one with a knowledge of chemistry—(laughter). He was delighted to see so many ladies present. They were not only the mothers but the feeders of men—(laughter). Yet he supposed there were scarcely 40 or 50 in that room who were acquainted with the constituent elements of food, or knew how they affected the body. Which part went to the production of strength, which to help respiration, and so on. It was however most important that all these things should be known, and especially in ships where men had often to be sustained under circumstances of great difficulty. All these things would be taught in the school, and therefore he commended the institution to their support on the ground that it was designed to train men to a knowledge of the ordinary occupations of life, as well as to enable them to maintain a position in the intellectual competition now going on throughout the world. A very little only was required, to be added to make the Bristol school, one of the most complete schools or polytechnic institutions, in the country. They had already established a mining school, to explain the principles upon which mining operations were conducted, and to try to lessen those accidents which were continually happening in mines. The only thing wanting to complete the institution, was a school of navigation, which, certainly was most important in a city like Bristol. He was aware that they had such a school already, and he believed it only required a little systematic effort, to enable the two to co-operate. He did not know whether any local jealousies might interfere in the matter, he trusted not; but if there were any feelings of this kind, he was sure there would be a mutual giving way, for the honor of having one of the most complete polytechnic institutions in the country—(cheers).

Mr. HANDEL COSSHAM rose to explain the objects contemplated by the establishment of the proposed Mining School. The prosperity of the country he said mainly depended upon its mining operations. England raised three times as much coal as all the other nations of the earth put together; about 250,000 men were employed in their large collieries, and it was not too much to say, that at least from two to three millions of the population were dependent upon them. Then there was the iron trade, a glance at the extent of which would at once show the importance of the objects contemplated by the promoters of the Mining School. Within the last sixty years the production of iron had been raised from 120,000 to upwards of 3,000,000 tons per annum, and England now manufactured more than one half of the iron used in the whole world. One of the chief designs of the proposed Mining School, was the creation of a better class of managers, overmen, &c., &c., and in order to accomplish so desirable an object, and enable the working classes to avail themselves of the advantages to be derived from the school, it had been arranged to open an evening class, for the teaching of those branches of knowledge connected with mining occupations. The result was anticipated to be in the first place, a lessening of the number of mining accidents. At the present time there were something like a thousand persons killed every year in the various mines in the country; if by any means they could lessen this fearful slaughter, it was both their duty and their interest to do it; and he did not think they could do it in any more effectual way than by giving a mining education to those employed in the mines. Another important object which it was believed would be attained, was a vast saving of mineral property. A great advantage would also be derived by the men themselves. It had long been the boast of this country that its working men might rise to the highest positions in life, and there were wanting not a few illustrations of this fact amongst the mining population. It was believed by the promoters of the school that in giving to so many men a knowledge of the first principles of their calling, they were laying the foundation of their future progress in life. For the support of such schools the promoters appealed first to the owners of mineral property. They considered they had an especial claim upon the proprietors of large collieries who ought ever to feel interested in the welfare of those employed in collieries, and then, lastly, they thought they had some claim upon the public generally in order to assist them in carrying out the object in view. Two objections had been started to their mining school. In the first place, its establishment in Bristol was objected to on the ground that they could not thus embrace the whole mining district of the South of England. But there were especial advantages for such a school in Bristol, and such as could be had at no other place. They had in this city one of the finest geological museums in the country, and being established in connection with the Trade School, the pupils would have an opportunity of acquiring knowledge which could not be obtained elsewhere. Arrangements had been made with the proprietors of pits in the neighbourhood to take into their

employ children from a distance; these children would be able to attend the evening classes, and thus the advantages of the school would not be confined merely to the locality in which it was situated. Another difficulty suggested was that they were endeavouring too much to combine the working and higher classes together. He thought it desirable that they should be brought together, and he hoped that day by day something more would be done to bridge across that great gulf which separated the higher and lower classes of society—(cheers). He considered that by the establishment of schools like those, they would be doing something to remove any kind of ill-feeling between the two classes, and that in trying to lessen the number of accidents, securing the services of good overmen, and thus of promoting the mineral prosperity, they were doing something towards promoting their country's progress as well as promoting in every sense the advantage of the mining population. The time, he would observe, was favourable for the establishment of such a school in Bristol. In consequence of, it was believed, the settlement of the war they would be able to devote their energies to matters connected with the social progress of the people, and he could not but think that the starting of the school at such a time augured an auspicious future. He hoped they would succeed in this and in all other efforts, having for their object the welfare of their country and the good of mankind, and that they would go on making their country, what it had hitherto been, to a considerable extent, great, glorious, and free—(cheers).

The resolution having been adopted,

Mr. Commissioner HILL rose to move, "that the best thanks of the meeting be presented to Earl Ducie and the other gentlemen, who had given the committee the honour of their attendance on the occasion." He felt some difficulty in presenting the resolution to the meeting, because it might be supposed from it that they of the middle classes felt surprise at the noblemen and distinguished persons who had been drawn together that day, feeling interest in an institution like that which was about to be opened. It would be but a very poor compliment to them to suppose that to be the case. They had as great an interest as those of the middle class in the enterprise which was now to be undertaken. Still if he (Mr. Hill) had been speaking, not in the year 1856, but some 30 or 40 years ago, he should certainly have felt some surprise at the higher classes, taking that strong and sincere interest which they now did in the institutions of the working and middle classes. But there had been a great, a holy change—(applause). It was a change as much for the benefit of the one class as for that of the other. The day was now passed or was rapidly passing, when a nobleman at one of the universities could obtain his degree by his gilt tassel and his fine gown. He did not trust to the outside of his head now, but he met, in the fair arena of combat, with his adversary from the lower classes, and held his own as became the aristocracy of a free people—(much applause). It was a glorious change. He (Mr. Hill) had been in conversation the other day with a well-known nobleman, Lord Harrowby, and had asked him a question. He had said to him "There used to be an animal when I was in London some time ago called the Bond-street lounge; I did not see one of them when I was in London last year, can you tell me where he is gone to?" Lord Harrowby said he believed there were still some of his class who did not engage enough in public and private business, but that the number was comparatively few. In fact the Bond street lounge, was fast becoming a fossil animal—(loud laughter). He (Mr. Hill) did not know whether a specimen of him was to found in that museum of which Mr. Cosham had spoken, but if it were he did not know that that would be any great change to the animal, for he had been but little better than a fossil before—(laughter). Mr. Cosham had well said that they were about to enter on a new career in this country. They had stood firmly together in the combat of nations, class to class, shoulder to shoulder during the time of war—(applause), but they were now led to believe that peace was at hand. Let them then prepare themselves for the struggles of peace; for depend upon it peace would have her conflicts as war has had his. They had heard from Dr. Playfair that the nations of Europe and the world had been making rapid advances; men who had noted the Great Exhibition in England of 1851, and in France of 1855, wise and sagacious men told them that if England was to maintain that supremacy in commerce, which she had so tardily gained but which she held and grasped so firmly, it must be by that education being extended to her manufacturing classes, which had been long since afforded to similar classes on the continent—(applause). They now stood in circumstances new to the country. Heretofore, they had been protected by the abundance of their raw materials in minerals and other products, by the command they possessed over the navigation of the world, and, by that peace and order with which

Providence had blessed their land for so many years, more than a generation having passed since an armed hand had been raised in England that was not a subject of the sovereign of these realms. But they were now placed on the same footing with the rest of the world. It would not do for them to look back on their past exertions, or to be content with what their forefathers had done for them. They must emulate their deeds. Their ancestors did well with small means, and shame on them, if, with their vast resources, they could not do better—(applause). How then could they prepare themselves better for that struggle than by such institutions as they were met that day to inaugurate, and by such assemblages as theirs, in which all were animated by one object. He (Mr. Hill) was very much gratified at a cabinet minister having come to attend the opening of their schools, and, though the fact might create no surprise in the minds of those who met him, yet it was a sign of great importance as showing the interest felt by government in their undertaking. It seemed but a slight cause to fetch a minister of state from the metropolis, to set a few schoolmasters in motion. The times must have greatly changed from the days of Johnson, since now it excited no surprise that he should come. In Boswell's life of Johnson it was related how Boswell's father, who was an old Scottish judge expressed his surprise and contempt at his son Jamie taking up with an old schoolmaster, an old Dominie. Little did the old judge think then that his only chance of being known to posterity was from his having been the father of a man who had been on such terms of intimacy with the great Johnson—(applause). How brilliant and permanent was the light shed by genius, that it not only irradiated itself but shed its light on all those who came within the circle of its influence—(applause). The learned Commissioner paid a passing compliment to the Scottish nation, and continued by alluding to the necessity that existed in schools like theirs of directing the studies of the scholars so as to fit them for the duties they would have to perform in after life. He did not mean that the education imparted should be narrow or contracted in any way, and he was well pleased to read in the report that it was proposed to give an enlarged view of the duties and occupations which the boy would have to undertake on his entrance into life. Mr. Hill alluding to the touching anecdote related by Sir A. Elton concerning the working man who had put an end to his life because he was wearied of doing the same thing day after day, and in reference to it remarked that in the town of Birmingham they possessed many beautiful inventions made by workmen. The minds of those men were active, and as day by day they laboured at their machines, they examined them until perhaps they saw where an improvement would be effected and carried it out. Thus an interest was cast over the labour of those men by the reflection that they had not left the world exactly in the state in which they found it, but had contributed their mite towards human improvement—(great applause).

Mr. P. F. AIKEN said he had the honour to second the resolution moved by Mr. Commissioner Hill, and he did so with much pleasure. He concurred with the learned commissioner that it ought to excite no surprise that a nobleman and other gentlemen should have come down that day to honour them with their presence, and that not only for the reasons stated, but for this, that scarce more than a year had elapsed since the prime minister of England did not feel it beneath him to come from his serious avocations of state, and inaugurate another literary institution in Bristol—the Bristol Athenæum—(cheers). But if such an occurrence did not excite surprise, he felt he was but speaking the sentiments of the meeting when he said it ought to, and that it did inspire feelings of gratitude—(cheers). They were met in a hall which reminded them that there had been merchants in bye-gone days known for their wealth, high integrity and benevolence of character, but who were now best remembered and most revered, because they founded and endowed schools which had conferred inestimable benefits upon successive generations of people in this city—(cheers). But it was no disparagement to those schools or their founders; that they were endeavouring to establish schools of a higher class, in an age in which not to advance with the times was not merely to stand still but absolutely to fall into neglect and decay, to be outstripped by their more active rivals, and to be distanced by able and ingenious competitors—(hear, hear). It was a remarkable fact and one perhaps not generally known to artisans that there were no less than 1700 tradesmen in this city into whose familiar employment there entered scientific principles with which it became them to acquaint themselves, and which they would now have the opportunity of doing. There was one trade not referred to in the list, and that was the source and mother of them all—he meant the cultivator of the soil. Mr. Aiken then referred to the vast improvements which had of late years been effected in agriculture, in connection

quence of attention being paid not only to improvements in implements of industry, but the progress of information as to the nature of different soils, manures, &c. At one time, he continued, the country was thought to derive its chief inspiration from towns, but in this particular, the attention paid to the principles involved in their occupation, the country had set an example which it would be well for the town to follow. He dare say some would say "why not let well alone"; but this was the old argument for doing nothing. It would not do to fold their arms and be satisfied with the progress that had already taken place. They had undoubtedly made wonderful progress in times past, but this was, under Providence, in a great measure owing to their glorious civil and religious institutions which had sustained the high character of the country and given scope to the energies of the people, in the freedom and rewards of honest industry. But much was also due to the fact that although England had been burthened with taxation, she had had none of the horrors of war on her own soil, always fighting her battles on her own peculiar element the sea, or on some foreign shore. But who could tell how long this state of things would last? The world was now being drawn closer together, and a fiercer race of competition had begun. He trusted that one important object would be borne in mind in the training of that school—that it would be a place where the pupils were taught not only the principles of honest industry, and to cultivate that ingenuity which every honorable man must exercise if he would prosper, but that every effort would be made to discourage the ingenuity of fraud, which unhappily too much prevailed, but which, though it might gain some temporary advantage, was followed only at the expense of character, certain exposure, disgrace, and ultimate ruin of those who practised it, as well as being disadvantageous to the trade of the country generally—(cheers). Mr. Aiken then referred to the important improvements likely to be effected by artisans becoming acquainted with the principles involved in their various occupations, as their minds would be opened, and they would therefore be ready to take advantage of many an incident which might be unnoticed by an uneducated mind, and said that an impetus would thus be given to improvements such as had never before existed in the country. He then expressed the hope that parents would be found to take advantage of the opportunity which would be afforded their children of acquiring that knowledge which was about to be placed within their reach, and concluded by seconding the resolution.

Mr. H. BENNETT supported the resolution, which was carried unanimously.

Earl Ducie having been obliged to leave whilst Mr. Commissioner Hill was speaking, the resolution was acknowledged by Mr. W. H. HYATT, of Painswick.

The Mayor moved, and Dr. Rogers seconded, a vote of thanks to the Society of Merchants, for the use of their hall on the present occasion.

The resolution was carried unanimously, and acknowledged by Mr. J. HASSELL, Master of the Society for the present year.

Earl Granville then left the chair, which was taken by the Right Worshipful the Mayor.

W. H. G. LANGTON, Esq., M.P., in moving a vote of thanks to the noble chairman, said the resolution he had the honour to propose was one that would require no advocacy at his hands. In their great and free country there was one distinctive feature which must be deeply impressed on the minds of all who had taken any interest in the welfare of their countrymen; it was that feature to which in a great degree they owed that maintenance of order which had long distinguished them among nations; that feature was the readiness and liberality with which those who had been favoured with the gifts of fortune, employed those advantages for the benefit of their fellow-men—(applause). Every heart throughout Bristol, he felt convinced, must feel the truth of what he had said when they saw amongst them the noble Lord who had honoured them with his presence on the occasion, and who by so doing had shed a lustre over the inauguration of their schools—(applause). He referred with pleasure to the fact that in the midst of the preparations for the war, in which for three years they had been engaged, her Majesty's Government had shown by the steps they had taken on the subject of education that they had not forgotten the duty which rested on them of providing for the welfare of the community. The noble Earl, the President of the Council, had peculiar claims on the gratitude of their city. They must all have a vivid remembrance of that event which had formed so brilliant an era in the annals of the 19th century, when in 1851 the nations of the world met in friendly concourse beneath the crystal arch, raised by the hand of civilization. On that occasion the noble Lord was engaged in aiding the carrying out the great object of that Prince who so well understood the welfare of his country. He (Mr. Langton)

then had the honour of forwarding a memorial from this city on the subject of the education of artisans to the noble lord, and it was with the greatest pleasure that he now availed himself of the opportunity of returning his thanks to Earl Granville for the courteous reception that had been accorded him. He was convinced that it was to the Great Exhibition of 1851, that was owing in a great measure, the establishment in this country of schools of art and science, such as that which had that day been inaugurated. He was sure he was speaking the sentiments of every one amongst them, in saying that when to-morrow Earl Granville should have quitted their ancient city, he would carry with them the heartfelt thanks of the entire population of Bristol; that by his presence amongst them he had added another link to that bond of good-feeling which united the labourer, the artisan, the tradesman, and the lord, and that he had set a noble example to others, to provide that necessary education so essential in promoting those arts and manufactures to which in a great degree, they owed the prosperity of their country—(great applause).

The Very Rev. the DEAN, in seconding the motion, said he thanked the noble lord for his presence amongst them, because he was there as a representative of the spirit and the mind of government. He rejoiced to see the active interest taken by government in the question of education, an interest too, not confined to one political party but shared as much by a Palmerston as a Derby, a Pakington as a Russell—(applause). He (the Dean) could scarcely hope to elicit from Lord Granville any information respecting the measures proposed to be taken by her Majesty's Government, with respect to the education of the country, but this he might state, that they, the promoters of the schools, could not have opened the institution at all, had it not been for the exceedingly liberal support afforded them by the government—(much applause).

The motion was then put to the meeting and carried by acclamation.

The Right Honourable the EARL of GRANVILLE was received with loud cheers. He said if he had thought that, as connected with her Majesty's Government, his coming to Bristol on this occasion had been meant to intimate that the Government intended to discourage in the slightest degree the local government of a school, such as that they were met there to promote, he should have stayed away; or if they had expected him to give them better practical advice than that which they had already received, he certainly should not have presented himself for that purpose. He should also have stayed away, if, upon making inquiry, he had found that this Trade School had been promoted either by parties hostile to the Church, or, if promoted by the Church, it had been promoted in an illiberal spirit, which drove from the school laymen, and those who did not agree in the doctrines of the Church. But when, on the contrary, he found every class united, every grade of the church connected with it, including that venerable prelate whose absence from amongst them that day they so much regretted—including the municipal authorities of this ancient city, including the landed gentry of the neighbourhood, including some of the greatest commercial men and manufacturers in this city—seeing all this, he felt that it was indeed an honour to himself to accept the invitation which had been given to him—(applause). He had felt, too, that there might be some good in one member of the government being present on the occasion to give an earnest of the deep interest which they felt in the experiment that was now being tried. He (Lord Granville) had said they must not expect to hear anything very new from him; he had not spoken with excessive humility, but, after having read the pamphlets and heard the speeches on the subject of the establishment of schools like theirs, it was impossible not to see that the arguments used were very similar to those employed at the commencement of the century, in relation to the introduction of Mechanics' Institutes. But they at the present time had one great advantage, that whereas formerly the arguments were those of the few, they were now those of the many; formerly they had been put forward by but a clique or coterie, but now they were entertained by all parties. The question of education itself, of what it was, and what the educator

ought to teach to the person to be educated, had been mooted, more or less, for a thousand years. Latterly, in Europe, there was a feeling generally spread with regard to the upper classes, that their education had been too exclusively confined to classical attainments. In this country that feeling had been often expressed, and he was happy to say a considerable movement was now taking place in our universities, public schools, and grammar schools in this respect. In Germany the feeling had been so strong in that that way, that what were called real or trade schools had risen somewhat in opposition to the excellent classical schools they already possessed. In France this opposition was curious to watch. On the one hand, some of the extreme Catholic party—those who took the most narrow-minded view, with regard to the interests of religion, while they thought Latin an absolute necessity to be taught, yet objected to the youth of that country being taught Latin from the works of Pagan authors, and proposed that they should learn their Latin from the Latinity of the Christian fathers of the Church; and, on the other hand, some of the most eminent political economists of that country raised their voices most indignantly against the necessity that now existed for themselves and their children to learn that which they did not consider a requirement of the 19th century. They complained that their children were taught citations from classical authors, and from the examples of great men of antiquity, that they learnt their notions of order from the conduct of the Gracchi, and their notions of liberty from the sanction given to the institution of slavery—that glory consisted in detestation of peace and love of war, even without a just cause, and in the contempt for labour, which they consider servile work, unworthy of free men. Lastly, they complained that they should learn that patriotism consisted in detesting and injuring all other nations as much as possible. Now there was immense exaggeration in these objections. It was impossible for any one to consider the subject and not believe that an accurate knowledge of dead languages was of great use in strengthening and refining the intellect—(hear), and that the learned and sublime things spoken and written by the greatest poets, historians, and orators of the world, must tend to humanize and elevate the mind—(applause). Still he did think that it was wrong in pursuing those classical attainments, to exclude that knowledge of the universe in which we lived, and of the living languages spoken by living men. The sole question was one of degree, and he was sure those whom he now addressed would feel that if this trade school was as successful as they hoped it would be, a gentle but certain pressure would be exercised upwards upon schools of greater and higher pretensions. A recent review in the *Times* stated that “as every Bavarian was able to read, the greatest prison punishment that could be inflicted was to take away books from the prisoners.” Now it was melancholy to reflect what was the proportion of prisoners in our gaols upon whom such a punishment could possibly have the slightest effect. It was a singular fact, that in England and Wales 69 per cent. of the men who were married, signed their names to the marriage certificates, and there were only 56 per cent. of the females who were able to do the same. This difference had been explained in various ways. It had been stated that the more selfish animal the man if he could write his name would do so at once, whereas the woman, if her husband could not write his name, was unwilling, on the first day of her wedded life, to assert her supremacy over her future husband—(laughter);—another reason assigned was the timidity of the fair sex, which rendered them unwilling to go through such a dreadful ordeal as placing on a piece of paper the letters that composed their names in the presence of the clergyman and the other attendant witnesses. But then, as was remarked by the Registrar they must put against those who were

deterred by considerations like these the many whose writing was such as could not be read, and the many who though they could write their names, could write nothing else. The city of Bristol was divided between Gloucestershire and Somersetshire, and he observed that in Gloucestershire the per centage of education was above the average, and it was to be found in the ten foremost counties of England and Wales. On the other hand Somersetshire was not in the ten worst counties, nor in the ten best, but was below the average of the whole counties of England and Wales. He found that the average of the men able to write their names in that county was 66, and a fraction per cent., while of the women it was as high as 61. Now the two difficulties in the question of education were, first, the want of school accommodation; and second, the want of appreciation of the advantages of education. With respect to the first it was stated, that no such want existed. Without going into this point (which he was not prepared to admit), he thought it gave a fallacious view of the subject in dispute. It was an admitted fact that both in the poor and populous districts of towns, and in some remote rural districts, there was a want of proper school accommodation. No one knew better than himself the efforts which had been made to increase that accommodation, but he did think that on this question some misapprehension existed, as to the extent of the pecuniary means required. He (Lord Granville) ordered a calculation to be drawn up in the Privy Council Office, the result of which was that taking the worst case of a village school, where no school existed at all previously and where they had to begin from the beginning,—if any person could collect £180 or less—if he could get the site and cartage gratis (which was generally the case), and could reckon on an annual subscription of £8 over and above the school fees of the children, he could provide a school for 50 children, not an excellent one, but one sufficiently good to meet all the requirements of the Privy Council and Government, and the promoters could claim from the Government all the assistance which it was in their power to give—(applause). With respect to the appreciation of education, he was afraid it was hopeless to expect from a generation of uneducated parents, that appreciation of education which was found amongst the Scotch, for instance, who for more than 150 years had enjoyed the advantages of an elementary education. Sir Arthur Elton had referred to the Government being able to give a stimulus to education by disposing of public offices to educated men. The Privy Council had tried a small experiment in that way, and it had answered exceedingly well. In the same way there were few great employers of labour who could not, even with advantage to themselves, find the means of giving a stimulus of this sort. The railway by which he came to Bristol had a regulation not to take into their employment any person who could not read and write, and did not know arithmetic—(hear). He believed that this regulation entitled the Directors of that line to be considered as greater educators than even by the excellent schools which they had established—(hear). He was sure that the Trade School might act most usefully as a stimulus in this respect, always provided that they strictly adhered to the rule, without which their own efficiency would be destroyed, that they should require a strict examination as to whether the candidate who presented himself was really worthy to receive the necessary elementary instruction. It was certainly a most marvellous thing that the people of this country, while running the race of competition with other nations, should refuse to themselves such an element of success in commercial progress as that of education. What would be said of a strong man who having to engage with a powerful adversary should tie up one arm—(applause). With respect

to the sort of education it was proposed to give, they ought to take great care, and not be the advocates of the theorist against the practical man. That which ought to be done was to give the practical man the advantage which he could obtain by learning something of the principles of the calling in which he was engaged. The ordinary effect of this would be that they would establish a race of artisans, men who would be better artisans, men who would not only understand their work better, but would be more able to deal with new processes. They would establish a race of artisans who would derive pleasure and gratification, instead of that deadly weariness so well illustrated by Sir Arthur Elton, in the case of the man who put an end to his own existence in consequence of not being able to work in mere routine. He believed that by this means they would raise the artisan both in his own self-respect and in the respect of his employers, and all with whom he came in contact.—(cheers). He believed an inventive genius was to be found in every class of society, and they would give that inventive genius enormous advantage if they trained the mind to learn those principles on which the labour of the artisan was founded. He could illustrate this by means of the steam engine. Look at the position of one workman attending the steam engine who was a mere part of a machine, and compare him with the workman who understood the chemical part of the steam, understood the working of the cold and heat, and who, from this knowledge, was able to derive gratification and delight. If this argument had force formerly, how strong must it be now that the steam engine had penetrated every nook and corner of the land. He passed a farm the other day, on which a steam engine of one horse power was being worked, and he had no doubt there were many present who had seen a steam engine in a confectioner's shop making up sugar-plums—(laughter and applause). Such an instrument as this being so universally used, it must be a great advantage to every person to obtain some knowledge of it. One of the reasons that had induced him to come here to-day was that he was glad to be present at the inauguration of this institution, knowing that a gentleman with whom he had been in official connection, the Rev. Canon Moseley had been one of its most active promoters—(cheers). He did not allude to that gentleman as a dignitary of the Church, or as what he had recently become (to the great loss of the Privy Council) a country clergyman, but as a late Inspector of Schools. When men like the Rev. Canon Moseley or Sir J. Shuttleworth departed from them, he could not conceive any more urgent duty upon those who had official knowledge of what they had done than to state the debt of gratitude which the nation owed to them—(applause). They all knew Canon Moseley, and they would agree with him, and his brother inspectors present too would agree with him, that by his high personal character, by his enthusiasm, and by the ability of his reports, he had certainly contributed to give that authority to the reports of all the inspectors, which he was happy to say they all now enjoyed—(applause). The Rev. Canon Moseley had also had this advantage, that by his eminence in science he had been chiefly instrumental in bringing that element into our elementary teaching. Many present would, no doubt, be aware that ever since 1846 some examinations of pupils teachers during their last two years had taken place in mechanics and mensuration, and that the physical sciences had to a great degree formed part of the examination of schoolmasters, qualifying for certificates of merit. This had been much improved of late. The Rev. Canon Moseley, acting on instructions given in 1851, had prepared a graduated scheme by which he encouraged the schoolmasters and students of training colleges to a more precise method of obtaining a knowledge of the physical sciences. In the same way he prepared a report upon a list of philosophical apparatus, grants of which could be given by the Privy Council. That report was agreed to by the Privy Council

in the year 1854, and he (Lord Granville) thought the result had not been unsatisfactory. In 1854 one schoolmaster presented himself for examination in the physical sciences, and he was unfortunately rejected. In 1855 no fewer than 28 schoolmasters presented themselves, of whom 25 received certificates; and in the beginning of the present year, comprising only three months, 25 schoolmasters had presented themselves, of whom 24 had passed. In the same way with respect to the grants for philosophical instruments, about £80 was spent in 1854, between £500 and £600 in 1855, and in three months of the present year, £350 had been spent—(applause). Mr. Temple, who succeeded Mr. Moseley, had informed him (Lord Granville) that he found the general knowledge of the schoolmasters and pupils in these special examinations to be excellent. Almost the first letter that Mr. Temple received from Mr. Moseley, urged him to follow the recommendations he had made with respect to the philosophical apparatus, and the lists of instruments had been greatly improved. Mr. Tate, who had greatly assisted Mr. Temple, had invented an air-pump, possessing exactly the same exhausting power as the old air-pump, which could be supplied at a cost of £2 10s., whereas the former machine cost £12 or 12 guineas. He did not mention these facts as the slightest glorification of the Committee of Privy Council, but because he considered them as creditable to Canon Moseley, who, up to the day that he resigned his office was really the practical suggester and practical carrier out of these great improvements with respect to scientific instruction. He much regretted that Canon Moseley was no longer with them, but, though absent in body, he was with them in spirit. There were few of their great "dipping days" in which Canon Moseley did not astonish the Privy Council by turning up somewhere in the shop—(applause). He was always ready to give his time and his advice, and what was still more valuable, his criticism. He carried this point so far, that sometimes he (Lord Granville) had found him, as the promoter of a school, strongly criticising those regulations which, as an inspector of schools, he had strongly advised the Committee of Privy Council to retain—(laughter). With regard to the school which they had met that day to inaugurate, he was rejoiced to find that the boys were there instructed in the ordinary branches of a sound English education. He hoped that in this school special care would be taken to teach the English language, a subject which was too much neglected in every school of every class in this country. He believed there was no advantage which could be given to a man greater than to learn to speak and write his own language grammatically. It might be trivial to mention the circumstance, but he knew a lady who was proposed to and married by a very able man, not so much because he had fallen in love with her personal charms, as because he was so delighted with the letters which she wrote to a third person—(laughter and applause). He (Lord Granville) received a letter a short time since from a person applying for a government appointment. He did not know the writer, and had no place to give, but he was so struck with the letter that he could not resist showing it to the present Governor General of India, Lord Canning; that noble lord, who was one of the most judicious administrators of patronage that he ever knew, was so struck with that letter that he took it away intending to make an investigation as to the person who had written it, and see if he were a fit person for a clerkship in the Post-office—(applause). He regretted that he had not asked Lord Canning what the result of that investigation was. In mentioning these two circumstances he wished to guard himself from giving the slightest hope that the future students of the Trade School were likely to get beautiful and accomplished wives by the excellence of their epistolary correspondence—(laughter). Still less did he wish to suggest to them that they would be anything but sacrificing their prospects in life if they were to neglect their own business in trying to soften the obdurate heart of a minister by grandiloquent epistles seeking for employment—(applause). But he thought the facts he had mentioned were useful as showing the power in writing a letter, whether upon business or any other subject, in a clear, simple, and grammatical style. With respect to the elementary principles of science being applied to trade and manufactures, he hoped the promoters of the Bristol Trade School would adhere to the rule they had laid down of not attempting to teach the trades themselves, but confine themselves to teaching the principles that were applicable to these trades—

(applause). With respect to religious instruction, whilst from the character of the promoters and the character of the school itself, there was no doubt it would be of first-rate character, it was most satisfactory to him to see that there was a very liberal provision by which religious education would not be made compulsory upon those who conscientiously differed and objected to such a course. With respect to the teaching of reading and writing, and the first four rules of arithmetic, he had already said that he thought it desirable to adhere strictly to that rule. Canon Mosely in his letter had suggested two points, but he did not know whether they had been carried out, namely, one respecting evening schools, and the other allowing pupils to attend half time. There might be difficulties with respect to both these points; but he was sure of this, that while there existed that competition of labour with the claims of education, they must constantly have resort to some expedients, such as those referred to, if they wished to carry out their plans to the fullest extent. With respect to the Mining School, he (Lord Granville), from being an ironmaster and colliery owner, could not but rejoice that this was established in connection with the institution now inaugurated. As an instance of the value of scientific knowledge, he would mention that his colleague, the Duke of Argyle, had from his peculiar education mastered, in a great degree, all the physical sciences, and, being a Scotchman, he possessed those characteristics described by Mr. Commissioner Hill, and was not likely to let his habit of practical observation be entirely thrown away. Some time since, his noble friend was looking at a quantity of refuse thrown away in the working of some metals, and was struck with its appearance. He sent it to a metallurgist and was told there was nothing remarkable in it. Not satisfied with that the Duke of Argyle sent it to the Museum of Practical Geology in London, when it was found that there was eleven per cent. of nickel, and that every ton of this refuse was worth from £50 to £60.—(applause). This was an instance of the value of a knowledge of science, and proved that such knowledge was not spread over the country at the present day. He would mention another instance. A near relative of his having extensive estates in Dorsetshire, being an agriculturist; but having no pretensions to a knowledge of geology, was informed that he had valuable deposits of gold on his estates. He treated the notion with contempt, but at last being told that thousands of pounds were spent in a neighbouring county in getting gold from a similar soil, he thought it wise to make further inquiries. He did not take inefficient advice, but went to London and was informed there what he before expected would be the case, that "all is not gold that glitters." (laughter). He would only add, that he could not help remembering that he was now standing in the old city of Bristol—in a city which had been remarkable for ages as one of the first commercial cities, not in England only, but in the world—a city remarkable for its merchant princes—remarkable both for commercial energy and enterprise, and its liberality in supporting numerous institutions, among others that school of which he was reminded with so much pleasure in coming into this hall—(cheers). He could not forget that this city had been represented by some of the ablest men in this country—(cheers). He could not forget that Burke himself, who was not always very obsequious to his neighbours, his constituents, acknowledged that he considered it the highest honour to represent such a constituency. The only thing that he could think of, as anything of an historical flaw in their history, was this, that the Bristol mobs were certainly given to habits of something more than usual turbulence when any excitement prevailed—(laughter). He remembered reading one of Bulwer's books (he forgot which) in which the writer said that if he were taken to a school and asked to predict who would be the most celebrated man, he would not ask the school master who was the best boy, but who was the most mischievous. Now he (Lord Granville) dissented from that doctrine; he had seen schoolfellows who had been looked down upon rather as plodders, who used to be called "saps," but who now were some of the most distinguished statesmen, and the most brilliant members of society to be met with—while his more mischievous companion was absolutely nowhere. But there was this truth, that a boy who showed much energy and ascendancy over others in daring frolics, was likely to display the same energy and the same strength of character applied to a useful and good purpose. He hoped they would find this the case with the labouring population of Bristol, that the more they educated them the very strength of their character and their energy, sometimes shown not in the best way, would form materials from which they would be able to make a finished article of singular durability and firmness—(applause). Hoping they would have success in this great experiment, and that they would set an example which would be speedily followed in all the other schools throughout the country, he would sit down with every feeling of confidence that they would carry on this great object in exactly the same spirit as they had begun it. He might, perhaps, add in a little postscript (it was a little vulgar certainly, and rather an ordinary

one), the uninteresting fact, that the promoters of the school owed £400 or £500 to the builders. He understood further, that the builders took such a matter-of-fact view of the question, that they would prefer a little ready cash at the present moment, rather than trust to the future advantage of their workmen learning mensuration- (laughter and cheers). He thought the mention of such a fact as this was sufficient to have it remedied in an assembly like the present. The Noble Earl then resumed his seat amidst prolonged applause, and the proceedings closed.

DIOCESAN TRADE SCHOOLE.

Above is a full report of the interesting proceedings which took place on Friday last, on the occasion of opening the school, under the auspices and presidency of Earl Granville, President of the Council.

The full exposition given in the Report of the Committee, and in the speeches of the gentlemen who addressed the meeting leaves but little to be added. We will, however, briefly recapitulate what the School purposes to effect. The boys then will be instructed in the branches of a sound English Education ; they will be taught the elementary principles of science, as applied to trades and manufactures ; and the application of their knowledge of the above subjects to those trades which it is intended they shall pursue. Religious instruction will be afforded under the superintendence of a Clergyman of the Church of England, but such instruction is not compulsory on the children of non-conformists. As a qualification for admission, the boys must be able to read and write, and to know the first four rules of Arithmetic. Sons of working men will have to pay fourpence a week ; those of small tradesmen, fivepence, and others one shilling.

It is not intended to instruct the lads in the *practice* of the trades, &c. which they may afterwards pursue, but only to impart to them a knowledge of the principles on which their various crafts are conducted. In the prospectus of the School it is stated that there are upwards of 1700 tradesmen in Bristol engaged in Building, Mechanical and Chemical Trades, to all of whom, and to those they employ, a knowledge of the scientific principles on which they act, would be of the utmost advantage, for it must be obvious to all that, if a boy or a man possesses a knowledge of the elementary scientific principles of his craft, he will become also a much better practical workman. We should add that a Mining School is attached to the Institution, and when we bear in mind the extent

to, which mining operations are carried on in this neighbourhood, we cannot but anticipate that great good will be effected by the instruction thus to be imparted. Hopes are held out that a School of Navigation will also form part of the scheme.

We are informed that the masters engaged are thoroughly qualified for their several duties ; and the plan is altogether so simple and judicious, the object so excellent, the cost so trifling, that we entertain sanguine hopes of ultimate success. Difficulties, no doubt, there will be at first, but if employers and others who may possess influence over their poorer neighbours, will but impress upon parents, the advantages which must result from their sons receiving such an education as this school will give, those difficulties will soon be overcome. Every effort must be made to make the Institution self-supporting. Government, it is true, will give some aid in the shape of grants to teachers, but the main-stay of the school must be in the number of the scholars. We have now a School of Design ; we have a School of Art, and when this Trade School shall be well established, Bristol will present advantages to the children of our mechanics, tradesmen, and others, not to be surpassed in any other city in the kingdom.

Once more referring our readers to the report of the meeting, we conclude by expressing our earnest wishes for the success of the undertaking, and the warm thanks of the public to those gentlemen who set it on foot.

